5. OPEN SPACE CONCEPT

5.1 Concept Plan

The Parks and Open Space Master Plan responds to the plan principles and addresses the issues and opportunities identified in the townscape analysis, and sets out a physical plan and strategy for the development of an exemplary system of public open spaces.

The Plan consists of an integrated system of streets, paths, parks, squares and other open spaces, and it attempts to build on Spruce Grove's existing special places and urban structure. The Plan addresses the provision of public spaces at three integrated scales: the city, the neighbourhood, and the street, and sets out design guidelines for several aspects of the plan. The Plan emphasizes the role of parks, open spaces, and streets in controlling and directed growth, and in shaping new development.

The key aspects of the Parks and Open Space Master Plan include the following:

Sense of Place

The Plan attempts to build on Spruce Grove's existing environmental features, historic and cultural resources, open spaces, and distinguishing features in order to enhance and support its sense of place.

The relationship with the landscape is perhaps the most powerful element contributing to Spruce Grove's unique sense of place, and the woodland parks form the heart of the city and the system. Where possible, the natural landscape should be integrated with the city form. Parks and open spaces in new neighbourhoods should respond to natural features, and where these have been lost in earlier development, such as south of Highway 16A, there is an opportunity for some re-establishment.

There is also a historical relationship between the city centre, the railway, and Highway 16A that established the first urban structure pattern, and this can also contribute much to the sense of place of Spruce Grove through city planning. The development of local identity and culture should be derived from these historic relationships, and be interpreted in contemporary ways.

Spruce Grove's existing special places should be emphasized. This includes the major open space nodes such as Heritage Grove Park, Central Park, Harry Singer Ball Park and the Tri Leisure Centre, as well as smaller sites. It also includes elements such as the grain elevator and museum, City Hall, and various schools and churches. Emphasis and reinforcement of these sites and areas helps to provide greater legibility and enhance the sense of place.

Ecological integrity

Dog Creek and Atim Creek, the woodlands of Heritage Grove Park and the undeveloped areas to the northwest and central east, and the networks of wetlands are unique and valuable amenities and ecological systems

and should be considered as the key organizing elements in the Plan. The Plan should be considered as a deep layer of ecological infrastructure that includes the creeks, woodlands and wetlands, and provides linkages to all parts of the City. Protection and reclamation of natural features is a priority in the Plan.

Living Machine from Ocean Arks International
Drawing from Research/PennState by Jeff Wolovitz

Green Infrastructure

Green infrastructure includes projects related to water and wastewater systems, water management, solid waste management and recycling, and capital expenditures to retrofit or improve the energy efficiency of buildings and facilities owned by local municipalities. Many urban municipalities in Alberta rely on constructed, engineered infrastructure for water treatment, wastewater disposal and treatment and stormwater management. There are several innovative "green" ecological means for accomplishing the same types of treatment.

The Plan empahsizes the incorporation of natural features in new neighbourhoods, and the development of innovative eco-industrial areas.

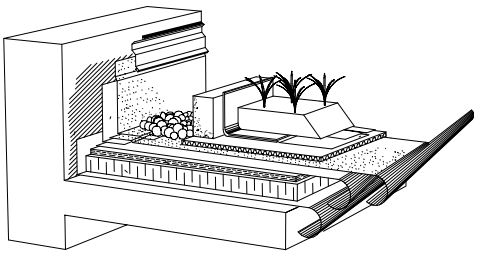
The Public Realm

The public realm is made up by the parks, squares, streets, paths, and other public spaces, and forms one of the most permanent elements of the urban infrastructure. All private and public development contributes to the formation of the public realm, and every project should be considered as having a responsibility to create high quality public space.

There is a strong correlation between public health and the parks and open space system. It is important for Spruce Grove to provide access to public spaces for recreation and enjoyment, and to ensure that the city consists of a network of high quality, walkable streets.

A Range of Open Space Types

Many parks and open space plans concentrate on sports fields and recreational space, and while these are important, the Spruce Grove Parks and Open Space Master Plan also includes principles and standards for other elements of public space such as streets and civic spaces. A range of open space types is required for a great city, and the infrastructure created by the effective layout, distribution, and linkages of these spaces contributes to a high quality public realm.

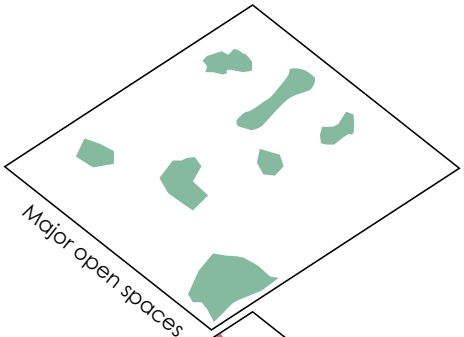


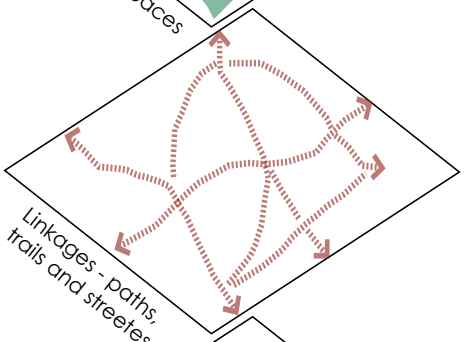
Sopranature Typical Assembly according to Soprema (www.soprema.ca)

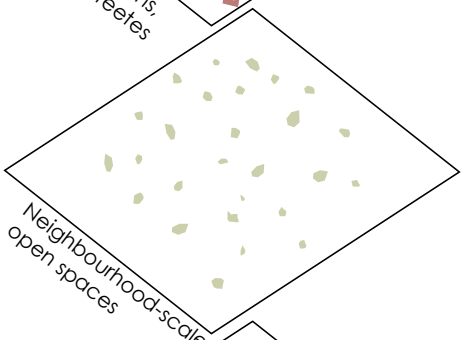
Green roof by Soprema in Canmore, AB

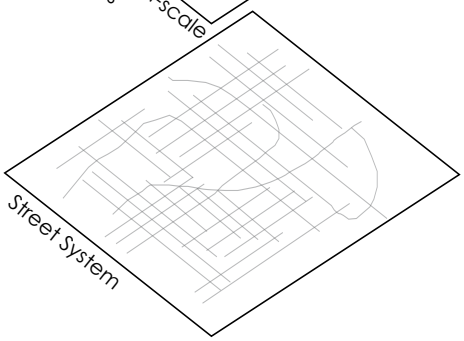
Spruce Grove's existing parks and open spaces provide the framework for the development of the plan. There is currently a good range of open space types, and most areas have access to parks and open spaces.

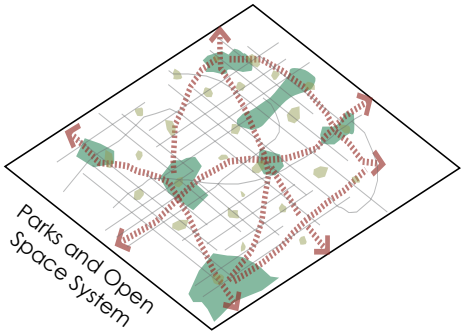
Open spaces are either resource-based (i.e., are found where they occur naturally or where cultural or historic sites have been established), or are population-based, and provided according to accepted norms and standards. Each open space type is distributed according to a distinct











pattern, although all the types are interrelated and inter-dependent. By overlaying the open space patterns, it is possible to identify areas of overlap, or places where there is a convergence of circulation routes or paths, or places where there are existing special places.

These locations are where major open space nodes should be located. Many of these already occur in Spruce Grove, and they should be supported. The plan also identifies where natural systems and population distribution indicates where new major nodes should be located.

Smaller open space nodes are distributed according to a finer grain, and are located according to population distribution. Both major and minor open space nodes should be well-linked to the linear path and street network.

Paths and Linkages

The Plan attempts to provide good multi-modal linkages for all areas of Spruce Grove. These linkages build on natural systems, on existing path systems, or on anticipated connections between neighbourhoods.

General connection points with Parkland County are shown, and intermunicipal green space recommendations (e.g., creeks) are illustrated. In addition, opportunities for strong multi-modal connections with Stony Plain are proposed.

Entries provide an opportunity to establish the image, character and qualities of Spruce Grove and should be developed to a high standard. Entry streets and the highway should be designed as special thoroughfares, and designed for multi-modal circulation.

5.2 Open Space System

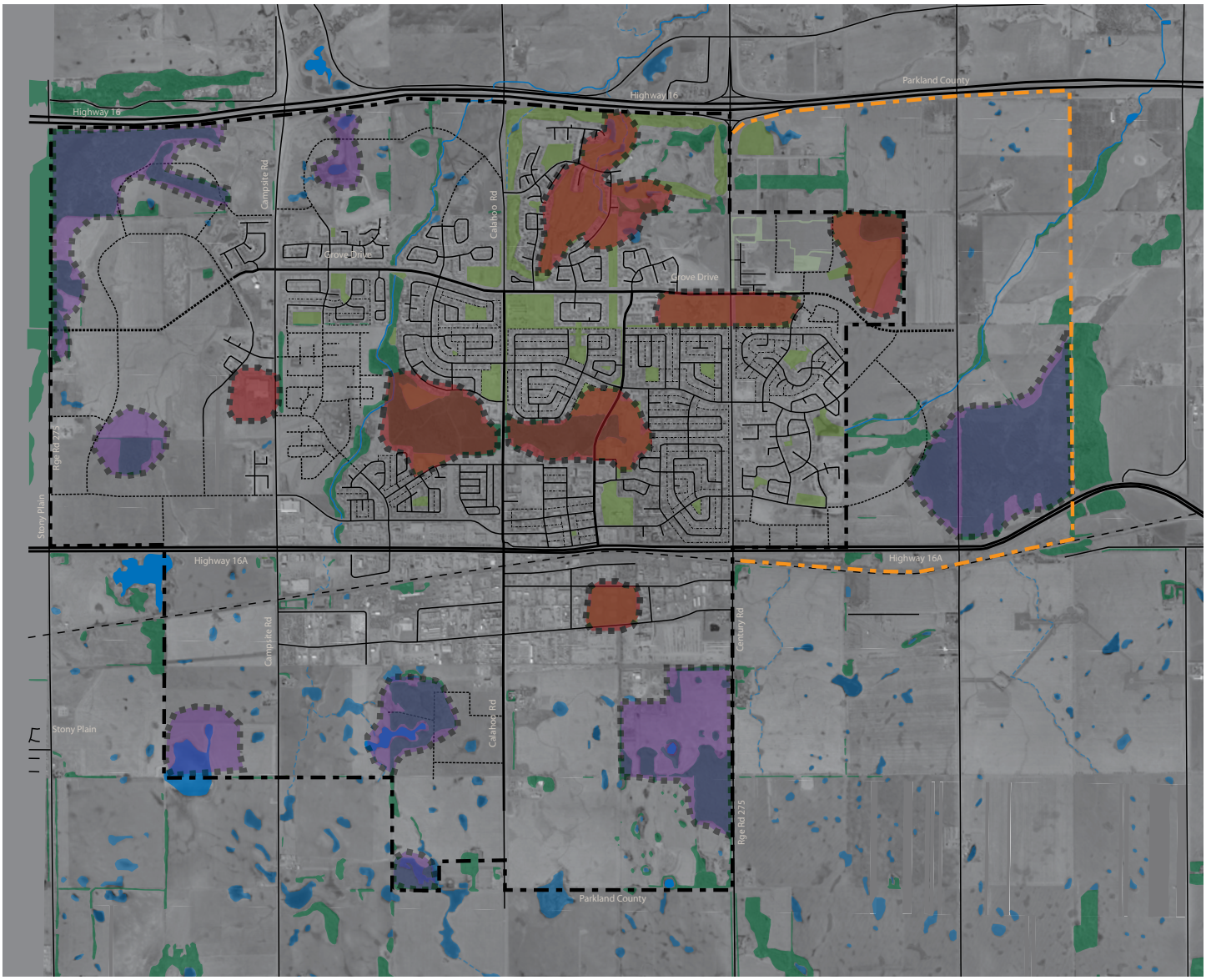
The Spruce Grove Parks and Open Space System is comprised of several interrelated elements which are shown on **Figures 8** through **Figure 12**:

- existing environmental assets and established parks are recognized as major open space nodes (**Figure 8**);
- new major open space nodes are proposed at several key locations;
- existing and proposed nodes are linked by paths, trails and streets (**Figure 9**);
- a finer grain of neighbourhood-scale open spaces is distributed throughout the city so that all residents have easy access (**Figure 10**);
- the city is interconnected by a street system that is considered as another element of the public realm (**Figure 11)**; and
- a range of open spaces is distributed throughout the city (**Figure 12**).

This provides Spruce Grove with a framework of a range of types of open spaces interconnected by trails and streets. The following sections describe the elements of the Plan.

figure 8

Major Open Space



Legend

- Tree cover
- Major green space
- Permanent waterbody
- Ephemeral waterbody
- Permanent watercourse
- Ephemeral watercourse
- Road
- Proposed Road*
- Highway
- Railroad
- 2006 City boundary
- Proposed annexation

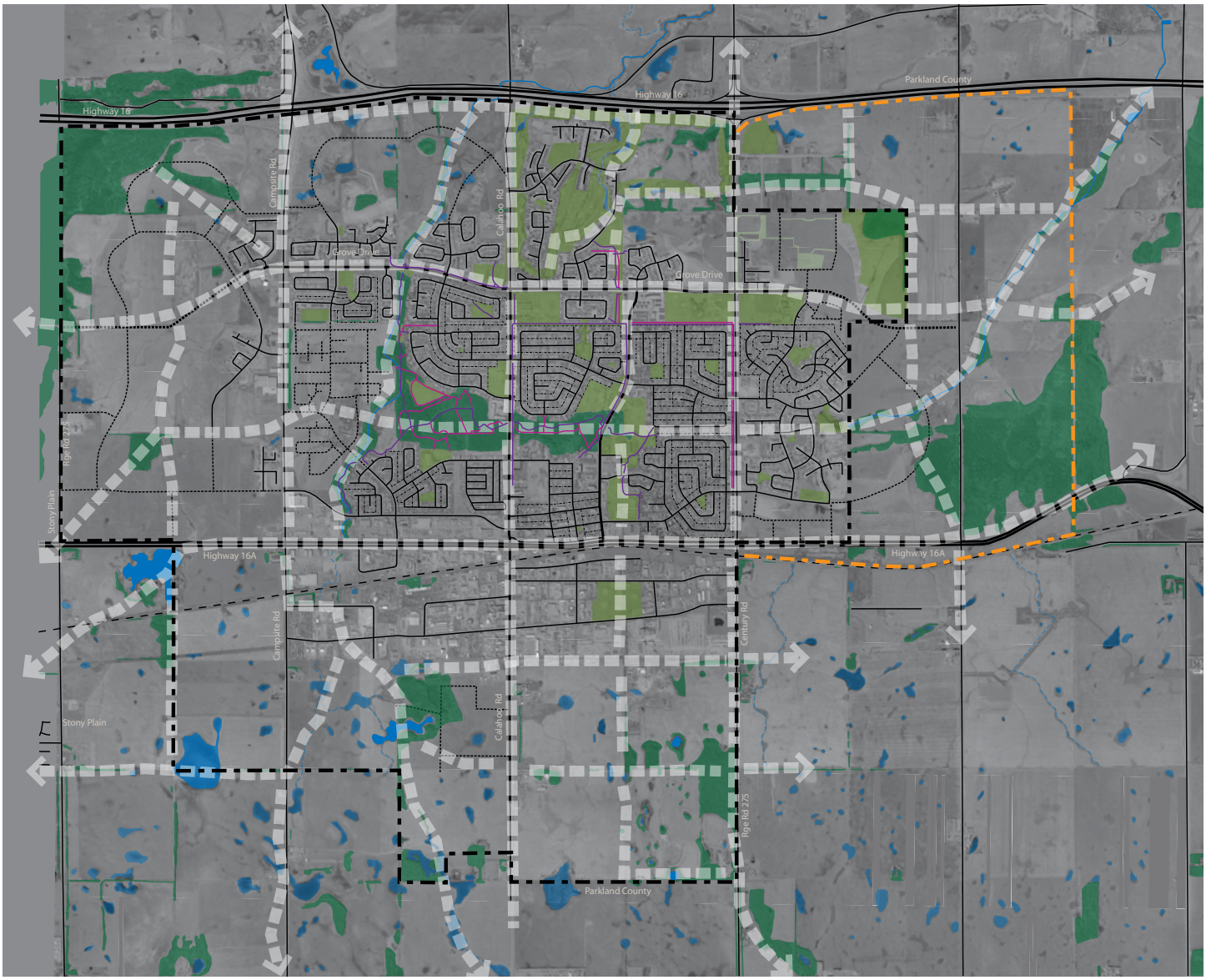
Major Open Space Nodes

- Existing
- Proposed

* Proposed in an approved ASP

figure 9

Linkages - Paths, Trails and Steets



Legend

- Tree cover
- Major green space
- Permanent waterbody
- Ephemeral waterbody
- Permanent watercourse
- Ephemeral watercourse
- Railroad
- 2006 City boundary
- Proposed annexation

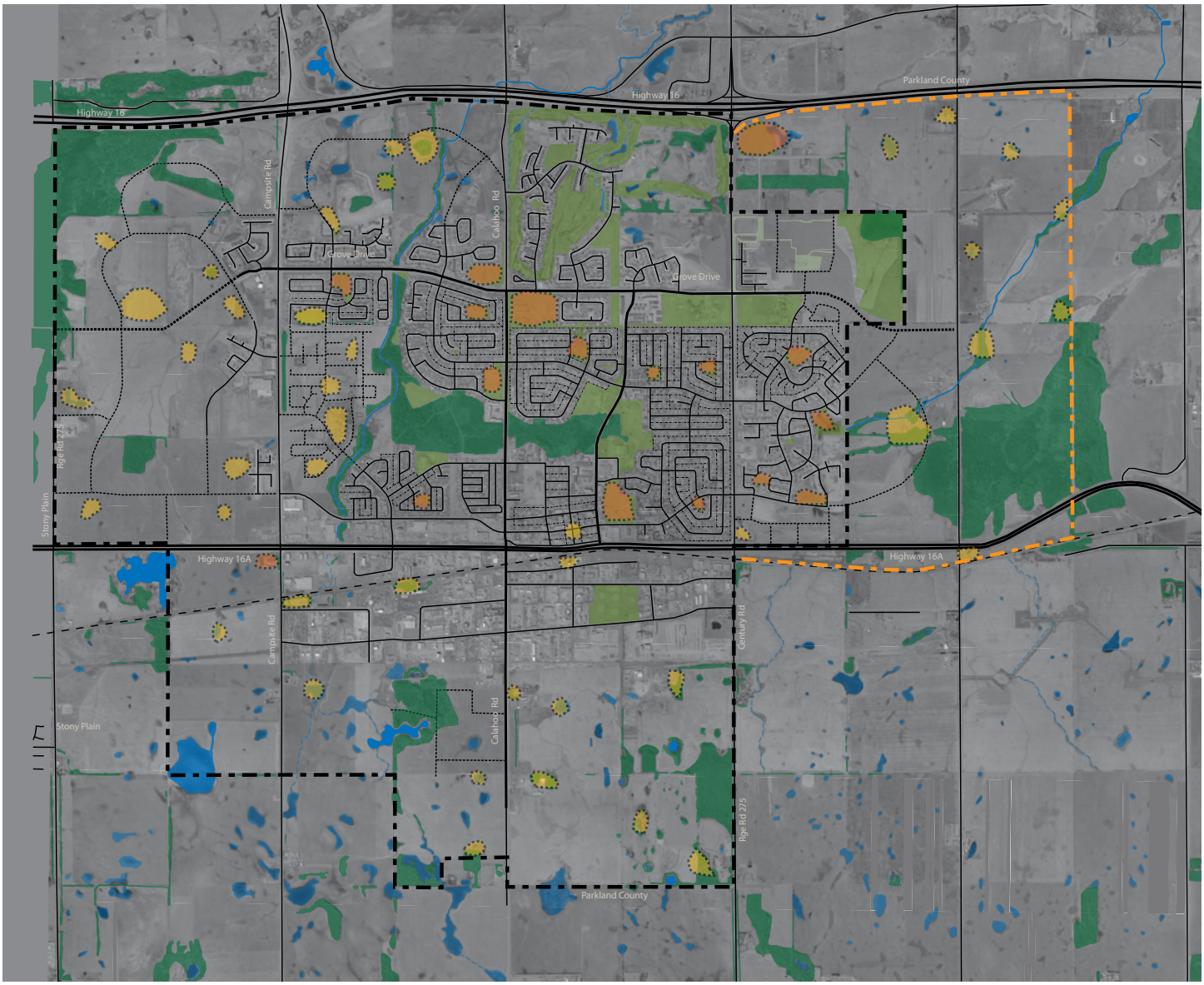
Linkages

- Existing Path
- Existing Trail
- City Hall
- Road
- Proposed Road*
- Highway
- Proposed connectivity

* Proposed in an approved ASP

figure 10

Neighbourhood-scale Open Space



Legend

- Tree cover
- Major green space
- Permanent waterbody
- Ephemeral waterbody
- Permanent watercourse
- Ephemeral watercourse
- Road
- Proposed Road*
- Highway
- Railroad
- 2006 City boundary
- Proposed annexation

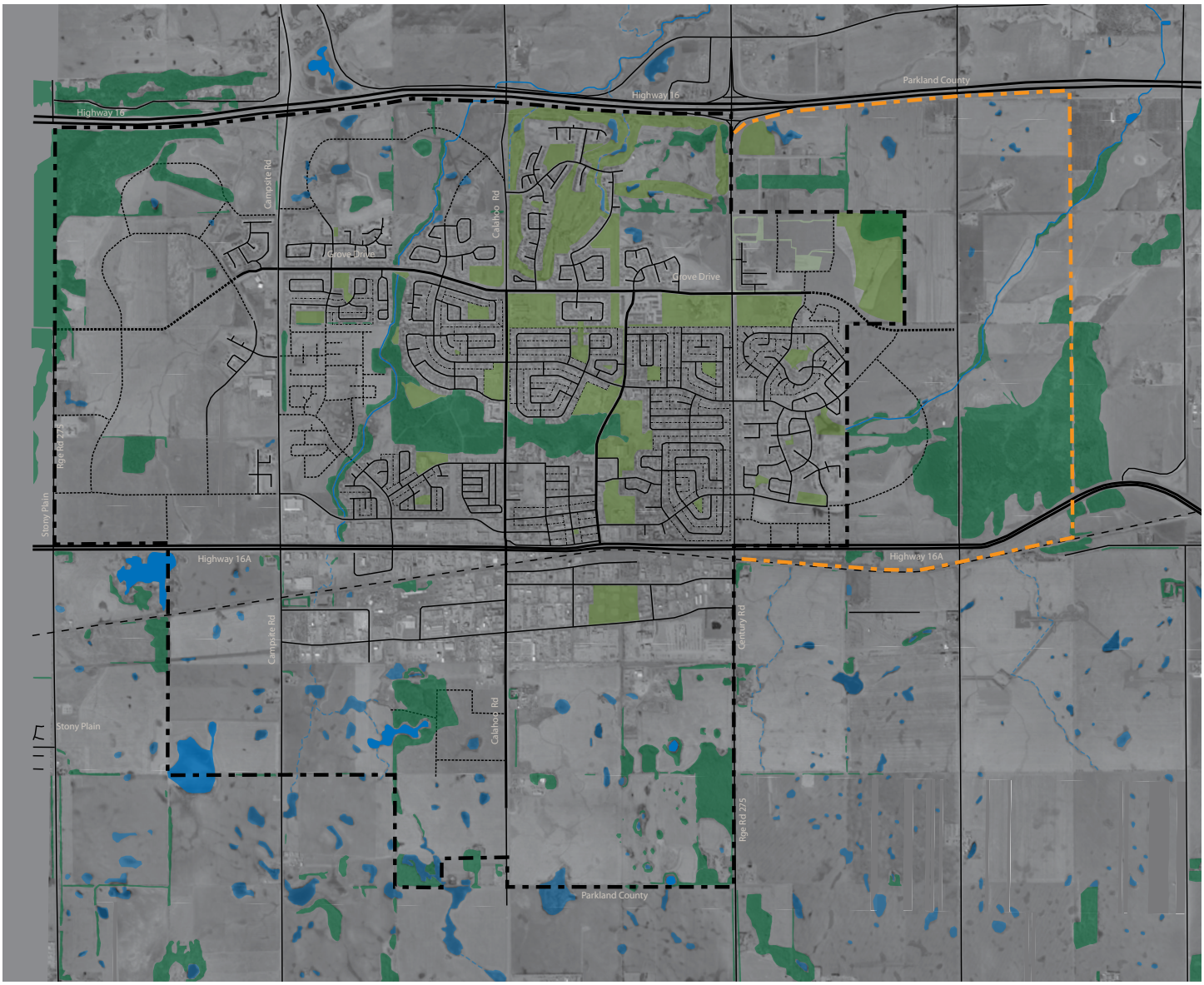
Minor Open Space Nodes

- Existing
- Proposed

* Proposed in an approved ASP

figure 11

Street System



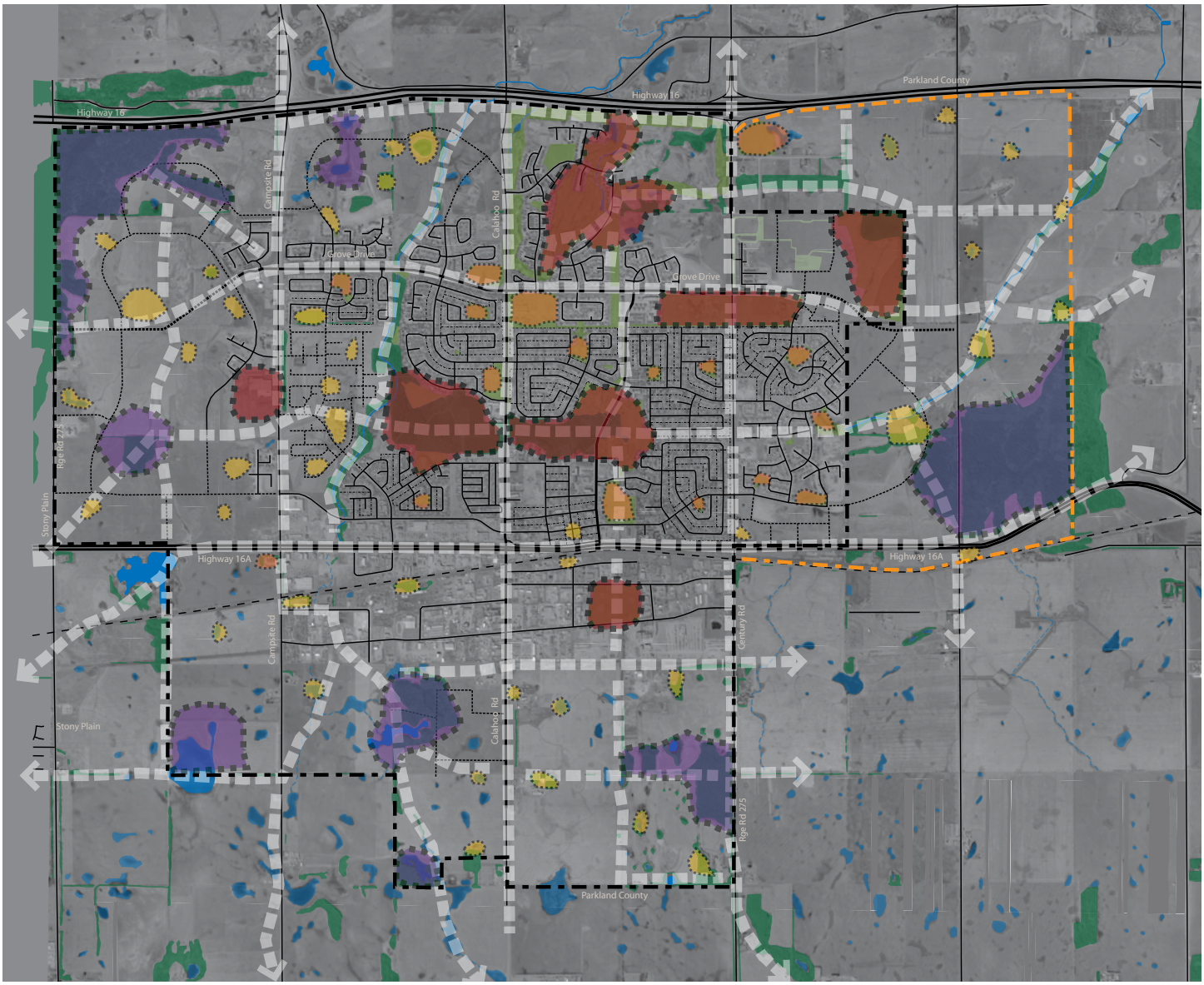
Legend

- Tree cover
- Major green space
- Permanent waterbody
- Ephemeral waterbody
- Permanent watercourse
- Ephemeral watercourse
- Road
- Proposed Road*
- Highway
- Railroad
- 2006 City boundary
- Proposed annexation

* Proposed in an approved ASP

figure 12

Parks and Open Space System



Legend

- Tree cover
- Major green space
- Permanent waterbody
- Ephemeral waterbody
- Permanent watercourse
- Ephemeral watercourse
- Railroad
- 2006 City boundary
- Proposed annexation

Linkages

- Existing Path
- Existing Trail
- City Hall
- Road
- Proposed Road*
- Highway
- Proposed connectivity

* Proposed in an approved ASP

Large Open Space Nodes

- Existing
- Proposed

Minor Open Space Nodes

- Existing
- Proposed

5.3 Open Space Nodes

5.3.1 Major Open Space Nodes

Existing Major Open Space Nodes are found in these locations:

- Heritage Grove Park
- Central Park
- Fairway Park
- Greystone Sports Park
- Henry Singer Ball Park
- Jubilee Park
- TransAlta Tri Leisure Centre

Additional Major Open Space Nodes are proposed in several locations. Overlay of the environmental inventory, the open space inventory, the cultural landscapes/landmarks inventory, and the proposed neighbourhoods allowed identification of where new Major and Minor Nodes should be located. The overlap of several open space systems, the presence of many public functions, or the convergence of several circulation routes creates greater potential for the development of areas in which the landscape, urban structure, functional relationships, and circulation patterns reinforce each other.

Major open space nodes should all include a range of open space types, and be well-linked by trails and streets. The proposed Major Nodes should include additional facilities and features:

The Plan proposes that all Major Nodes be considered as transit oriented developments, and include good accessibility by public transit, good multi-modal linkages, and higher relative residential densities.

5.3.2 Minor Open Space Nodes

Smaller open space areas, or Minor Nodes, should be located in conjunction with the population distribution, and include Open Space Types C (parks, gardens, civic spaces) and D (sports and recreation facilities), and where appropriate Types A (natural and semi-natural) and B (cultural and historical landscapes, landmarks) (see the following section for a discussion of open space types). These Minor Nodes will serve several neighbourhoods, and have a more local character (as shown in **Figure 10**). Each Minor Node should be designed by a qualified landscape architect/urban designer, and should reflect the principles and objectives of the Plan. Incorporation of new landmarks and features should consider input from residents in order to develop places that have a community-building potential.

5.3.3 Commercial/Civic Nodes

Commercial/Civic Nodes are also identified:

- Downtown civic node, and
- Cultural landscape node associated with the grain elevator.

The downtown has potential to be enhanced as a shopping and office character area. It has a compact and walkable street network, and would benefit from the incorporation of a several small civic squares, street tree planting, and other streetscaping.

Policy

1. Vehicular access to Major Nodes shall ensure safe routes via collector road system to avoid increased traffic in residential neighborhoods.

2. Connections with Spruce Grove's regional pathway system shall be mandatory for all new Major and Minor Nodes.

3. The acquisition of land for a Major Node may not be through dedication of MR and/or ER. The City is encouraged to seek alternate means for land acquisition and/or partnerships for funding to purchase.

4. Support facilities (e.g., concessions) should be built in conjunction with Major Nodes, if the site will draw festivals, tourists or sporting events.

5. Whereas neighbourhood-scale and Minor Nodes may be planned as a new area is developed (e.g., for residential use), Major Nodes may require several years of advanced acquisition and planning prior to construction.

Priority Actions

1. The City of Spruce Grove should collaborate regionally to conduct a long-range regional recreation/facility master plan, that will address needs over the next fifty years.

2. The City will ensure that a range of open space types is provided in each major and minor node, to correspond to the norms and standards outlined above.

3. The City will be responsible for ensuring that detailed plans and designs for Major Nodes are prepared that reflect the principles, objectives, and concepts of the Plan, in conjunction with the local School Boards as appropriate.

4. Due to the expense of developing new Major Nodes, the City should augment the assets at existing destination facilities as a priority.

5.4 Neighbourhood-Scale Parks

Neighborhood parks are typically small in size. They are often connected with a K-6 school or a community association, or located for the use of a single neighbourhood.

The spaces are often multi-use, and are utilized by school children during the day and by the community after school hours. There may be a joint use agreement between the municipality and local school board.

Policy

1. The dedication of MR in new communities which are too small to be used as viable long term open spaces shall be discouraged.

2.Small, single use park spaces (i.e., less than one acre) shall be discouraged where the costs associated with capital and maintenance are not justified by an appropriate level of use (i.e., frequency of use). Similarly, where the lifecycle of the park space (the period of time over which an age-cohort will use the facility) is not sufficiently long enough to justify costs of the park space, alternative open space use should be considered.

3. Existing pocket parks should provide (through retrofitting) sustainable, long term use for:

- ***children between 0 – 5 years of age;***
- ***persons with reduced mobility;***
- ***picnicking areas;***
- ***mailboxes;***
- ***transit stops; and***
- ***where large contiguous open spaces are limited due to natural or transportation constraints***

4. Spruce Grove should ensure that, where possible, neighbourhood-scale parks are sited in collaboration (i.e., signing of a joint use agreement) with the local school board to maximize opportunities for joint uses on the site for formal and informal play and school related activity and community related activity areas.

5. The location of the park space shall take advantage of and maximize the catchment area of the community.

6. The design of Neighborhood / Community Park Space shall comply with The City of Spruce Grove's Engineering Standards.

5.5 Open Space Types, Norms and Standards

This section discusses the types of open spaces that are included in the Parks and Open Spaces Master Plan, and outlines some of the norms and standards that determine the requirements for provision of each open space type. As well, open space objectives are discussed, and policies are outlined.

5.5.1 Typology of Open Space

The language of open space types provides the vocabulary for conceptualizing, designing and realizing a coherent and high quality infrastructure of public streets and spaces. Development of a typology of open space helps in understanding the relationship between the physical form of the open space and the functions it provides. An understanding of the typological framework of open spaces can help in providing an open space system that addresses the needs of a growing population.

Each open space type implies a particular design vocabulary, vegetation, and maintenance regime, and therefore the uses that are appropriate and desirable in each space.

There may be variation over time in how a particular open space is used, within the parameters of that type. For example, a recreation field may accommodate changing sports trends and changing age groups, but it will still maintain its function, and will still require the same level of maintenance.

It will not, on the other hand, be modified into another type, for example, into a civic square, or an ecological park, without modification to the parks and open space plan. This will ensure that Spruce Grove will maintain the desired range of open space types, and that its open space system will be adaptable to the population and culture as it evolves.

5.5.2 Norms and Standards

Successful open space systems are built around the existing resources and distinguishing features of a place. The extent to which one type of open space will be found depends on local availability, needs and circumstances, and also depends on the age of a settlement – open space systems take time to develop, and therefore great care should be taken to the establishment of a proper framework upon which the system can evolve.

Open space types are either resource-based, or population-based. The following section discusses some general standards and norms for provision of open spaces, however these will be refined in the next section and in the concept plan to reflect the particular circumstances of Spruce Grove.

It should be noted that normative standards should not be applied too rigidly, as they are based on generalities, and on a synthesis of several sources, and may not reflect the social, cultural, environmental, or economic situation of Spruce Grove. Norms and Standards used in this section have been referenced from the following two documents:

Leung, Hok-Lin, Land Use Planning Made Plain, Second Edition, University of Toronto Press Incorporated, Toronto, Ontario, 2003.

American Planning Association, Planning and Urban Design Standards, John Wiley & Sons Inc., New Jersey, N.Y., 2006

5.5.3 Types and Subtypes

A range of open space types is required for good city form and city life. Each of Spruce Grove's development eras has been characterized by open space types that have been considered valuable, and over time, Spruce Grove has acquired many of the open space types appropriate to its population. The following section outlines the open space types that are required for a complete open space system, and that characterize good city form.

Example of Type A (Natural & Semi-Natural Green Space or Watercourses)

Each of the open space types can be understood as a 'system,' with the presence and distribution of open spaces a factor of the characteristics of each type. Each type is somewhat distinct from, but interrelated with, the other types.

A Natural & Semi-Natural Green Space or Watercourses

Examples of Type 'A' Open Spaces:

- Woodland
- Urban forestry
- Grasslands
- Wetlands
- Canals
- Open and running water
- Ecological reserve

This plan assumes that the 'natural capital' of Spruce Grove is one of its major assets. Identifying the open spaces that are based on, or associated with, natural areas or ecological features is important in establishing an ecological framework for the Plan. These sites have intrinsic ecological value, and may have greater potential for recreation or interpretation purposes.

The issue of authenticity and ecological integrity is also of concern in the development of a system of open spaces. Natural and semi-natural areas occur where they are found, directly related to the landscape.

The presence of these spaces is directly related to the environmental conditions and features of the area. Preservation of natural systems is important in guaranteeing that open spaces of this type are present and that they maintain ecological integrity.

These spaces exist on a continuum:

Natural ⟷ Constructed / Human-made

Open space that is considered "Open Space / Environmental" in Spruce Grove should be set aside for the following reasons (at a minimum):

- Biological/ecological diversity
- Aesthetic quality of Spruce Grove's environment
- Wildlife and fish habitat
- Quality of life for Spruce Grove residents and visitors (e.g., air, water, ground)

Spruce Grove Context

Dog Creek and Atim Creek are small but important watercourses, and should be incorporated into all development plans in which they are found. The woodlands of Heritage Grove Park and the undeveloped areas

to the northwest and central east are perhaps the most notable natural features, and are unique and important assets. There is an extensive network of wetlands in the Spruce Grove region, particularly to the south, and these should be incorporated into future development where possible. They also have the potential to inform the development of eco-industrial developments.

Standards for Provision

- Regional park reserves generally have 80% of the area dedicated to conservation and resource management, and 20% to nature-oriented outdoor recreation.
- Service catchment area – one hour driving time, serve several neighbourhoods or city as a whole.
- Size can be from one acre (0.40 ha) to well over 1,000 acres (400 ha) depending on resource availability and preservation needs.

City Urban Forest Management Plan

The Urban Forest is composed of all the trees and shrubs within city limits. It includes natural vegetated areas as well as parks and street boulevards. While the trees on private property also contribute to the urban forest, only the trees on public property are considered as the responsibility of the City in this plan.

Street trees provide numerous benefits:

- they provide shade in the summer and shelter in the winter, and make streets much more walkable,
- they contribute greatly to the overall attractiveness of the streets and the City, and
- they have many ecological functions, and serve as habitat for birds and other wildlife.

The presence of street trees, and the design of residential streets, has varied over time in Spruce Grove. A strong vision of the public open space system should include streets with street trees as one of the most important public open space elements. This needs to be combined with a good planting, management and replacement program. An inventory of street trees is the basis for development of an urban forestry plan, and should be considered for Spruce Grove.

Objectives

- Ensure that the natural landscape is expressed in the open space system, and that all residents have easy access to Type A open spaces.
- Preserve creeks and adjacent areas, woodlands, and wetlands, and incorporate into new development where possible.
- Restore creeks where they have been channelized or diverted underground.

Policy

1. Natural processes in Spruce Grove shall be preserved to the greatest extent possible, and all natural systems (creeks, wetlands, woodlands) shall be integrated into new communities and/or parkland areas.

2. Planning and Infrastructure Department is primarily responsible for identifying lands for City acquisition (see Section 6.2 Acquisition Strategy) and for their long term maintenance.

3. The City of Spruce Grove is encouraged to create Natural Area Management and Enhancement Plans for open spaces set aside as natural or semi-natural areas. Any new developments adjacent to such areas shall be required to mitigate cumulative affects or other potential development impacts prior to construction.

4. New development proposals shall be required to include, in concept or area structure plans, a biophysical assessment of proposed developable lands identifying potential impacts on natural ecosystems, environmentally significant areas, habitat and other aesthetic qualities (e.g., viewshed).

5. The protection of identified Environmentally Significant Areas (ESA) in Spruce Grove shall be a priority. Specifically:

- ***a) ESAs should be preserved and maintained as ecological components of the open space system;***
- ***b) designated natural environment parks shall be managed so they maintain their natural character and integrity of these sites;***
- ***c) all Natural Environment Parks (NEPs) shall be obtained and developed primarily for unstructured recreation opportunities;***
- ***d) municipal reserve and/or school reserve dedicated adjacent to an environmental reserve or ESA should be located and developed in a way that will ensure compatibility between the two sites; and***

6. Development Plans submitted to the City shall be reviewed for integration of green infrastructure, including the following criteria:

- ***a) Has landscaping for energy conservation been incorporated into the plan?***
- ***b) Has the reliance on fossil fuels been reduced?***
- ***c) Does the plan include provisions for organic waste reduction?***
- ***d) Have impervious surfaces been effectively reduced?***
- ***e) Does the site maximize infiltration and minimize runoff?***
- ***f) Has landscaping (e.g., xeriscaping) for water conservation been incorporated into design?***
- ***g) Are the streets, sidewalks, community level trails connected to the regional pathway system?***
- ***h) Have energy efficiency measures been incorporated into building design?***

7. The planting of trees in Spruce Grove has a significant benefit for improving air quality, providing habitat, reducing ambient street level temperatures and improving quality of life for residents. Developers

shall be responsible for tree planting in new developments to Parks' specifications and also for the maintenance of trees over the first two (2) year period to ensure early growing period is successful.

8. The City promotes innovative integrative designs for stormwater management. Best Practices are also encouraged and the City supports the following management methods:

- ***wet ponds,***
- ***constructed or natural wetlands,***
- ***point source control (e.g., pervious pavement for parking lots),***
- ***storm conveyance methods, and***
- ***end-of-pipe practices.***

9. The use of MR lands for new or retrofit stormwater management facilities should be permitted, however the environmental, recreational, and aesthetic integrity of the lands should not be compromised.

10. The reduction of impervious surfaces (particularly asphalt) is encouraged to increase infiltration on site, decrease construction material use and maintain lower ambient street level temperatures.

Priority Actions

1. The City should develop a checklist of green infrastructure to evaluate development proposals. The checklist will also contain examples of performance indicators to provide developers with a better understanding of how to implement green infrastructure.

2. Given the future-oriented nature of the Plan, the City is encouraged to provide collaborative workshops for the local development industry, school boards, recreation stakeholders and other City departments to identify how to best designate and protect ESAs for the benefit of all parties.

3. Spruce Grove should establish links with the various foundations and councils to establish programs to help protect ESAs.

B **Historic Resource, Cultural Landscape, or Landmark**

Examples of Type 'B' Open Spaces:

- Cemeteries
- Churchyards
- Grain elevator
- Museum
- Historic sites

The location of historic or cultural sites depends upon local history and physical landmarks. Their identification provides the basis for a rich layer of open space. It is not expected that these will be evenly distributed throughout the city, however their existence provides an excellent base for place-specific plans to be developed that build upon unique resources.

Example of Type B (Historic Resource, Cultural Landscape, or Landmark)

Spruce Grove Context

Spruce Grove has a brief but interesting history, and like other areas of Western Canada, places of historic interest are often intertwined with the early settlement patterns. Many sites of potential historic interest have already been lost, such as the railway station and many of the grain elevators, and the remaining grain elevator and museum has even greater potential to serve as a landmark and important open space node. There are other historic sites and development patterns that may not yet have been identified or effectively integrated into the city structure.

Standards for Provision

- There are no accepted standards for provision.

Objectives

- Ensure that there is an accurate and comprehensive inventory and analysis of Spruce Grove cultural landscapes and historic resources, and incorporate into the open space plan.
- Consider institutional uses as assets in the open space system, and ensure that new development includes public open space that is well-connected to the open space system.

Policy

1. As a condition, all lands slated for development shall be required to conduct an Historical Resources Impact Assessment to be submitted to the Province for approval and to the City for review.

2. The City should map all historic and cultural landmarks in their geographic information system to aid in the proper and long term identification of these sites until such time as additional interpretive projects are implemented.

3. Major cultural and historic resources should be brought to the attention of the public and to historical societies interested in their long term preservation (funding may be available to the City).

4. All lands slated for cemetery development shall follow cemetery purposes under provincial legislation but the City is encouraged to design cemetery lands (under the directive of City Bylaw No. B-48/2003) with a secondary recreation use.

Priority Actions

1. Commission the preparation of a heritage conservation study for Spruce Grove. This will include a city-wide inventory of all potential resources, their value to Spruce Grove and what measures are to be taken to maintain their presence (e.g., preservation, conservation, restoration, etc.).

Example of Type C (Parks, Gardens, and Civic Spaces)

C Parks, Gardens, and Civic Spaces

Examples of Type 'C' Open Spaces:

- Civic spaces
- Gardens
- Amenity green space

Most settlements and communities have one or several formal or informal parks or gardens that have civic or ceremonial purposes. This category also includes informal recreation areas in housing areas, green spaces around housing areas, and hard surfaces designed for pedestrians. Many places have several green spaces of variable size and use. These may have actual use, but are often spaces that are left over after land use planning is complete, and may not contribute to the overall infrastructure of open space.

Parks, gardens and civic spaces are population-based, and also depend upon access (by foot, bicycle and vehicle). There are normative values for provision of this type of open space that correspond to population numbers, densities and distribution. This type of open space should be readily available to all sectors of the city and all of the population. It could be expected that a finer grain of distribution (many smaller sites) emerges relative to population concentrations.

Spruce Grove Context

Spruce Grove currently has Type C spaces of various sizes, including Central Park and several neighbourhood parks, however there are few high quality public spaces in the downtown or other commercial areas.

Standards for Provision

These types of open spaces are population-based, and should be provided according to the accepted norms and standards.

Table 12. Type C Standards for Provision

Subtype	Acres/ha/population	Catchment Area (Service)	Desirable size
Neighbourhood parks serving a social, aesthetic, or informal recreation purpose	1/4 - 1/2 mile	Uninterrupted by major road	3 - 10 ac (1.21 - 4.05 ha)
Large Urban Park	One per several neighbourhoods or to preserve notable landscapes and open spaces	Several neighborhoods	20 - 40 ac (8.09 - 16.19 ha)
Civic Squares	Square associated with city hall	Whole city	Small parks, squares

Policy

1. All downtown and commercial development are required to contribute to the public realm of streets and squares, and provide appropriate streetscaping.

2. Public realm contributions in the downtown and commerical areas may include widened sidewalks, pocket parks, small squares and plazas.

3. All Type C spaces should be designed for four-season, all-time use, and consider appropriate materials, landscaping, and lighting.

4. All development plans including Type C spaces shall show site context including adjacent areas, connections to the open space system, and detailed plans.

Priority Actions

1. Type C spaces can provide multiple roles within a community. They are often important focal points and landmarks, and do much to improve the economic values of adjacent areas. They also contribute to the economic vitality of the downtown and commercial areas, and benefit all businesses. The City is encouraged to examine the potential for off-site levies to business owners' payable to the City or through a local business owner's group (e.g., Business Revitalization Zone).

D Outdoor Sport and Recreation Facilities

Examples of Type 'D' Open Spaces:

- Tot lots
- Playgrounds
- Neighbourhood Parks
- Sports fields
- School sites
- Tennis courts
- Golf courses
- Skateboard parks / BMX parks and tracks

These are spaces that are designed for active sports and recreation uses. They vary in their degree of publicness (tennis courts and golf courses often function on a fee-for service), and in degree of general-specific use. They are often larger in size than other open spaces, and often include specialized structures or equipment. The specifics may change over time as certain activities, such as skateboarding, become more or less popular.

The distribution of open spaces of this type is generally population-based. Playing fields have a larger catchment area than playgrounds and tot lots, and would have a somewhat coarser grain of distribution. It is expected that much of the population would access these spaces by vehicle as well as by foot, and that the larger space and equipment requirements would mean that this type of open space would be selectively located. There is often opportunity for the joint use of many of these facilities (schools, community associations, and other groups).

Spruce Grove Context

Spruce Grove has several large sports and recreation areas which serve most areas of the city, including Aspenglen Park, Greystone Sports Park and Henry Singer Ball Park. As well, numerous smaller sports fields are found, many of which are associated with schools. Most neighbourhoods include totlots or playgrounds.

Recently, the City of Spruce Grove and the Parkland and Evergreen School Boards have signed an in-depth joint-use agreement, which has been instrumental in ensuring school sites are developed not only to meet the educational needs of the school boards, but also provide a larger community benefit. This agreement also makes school facilities available for community use and City facilities available for school use. Future school sites and City facilities should continue the spirit of cooperation and public domain that is joint-use.

User groups in Spruce Grove are well organized and have a broad base of volunteers available to produce top-quality sport programming. The growth of organized sport in the community has strained development and maintenance of sport and recreation resources. As the level of sophistication of organized groups has increased, so has the expectation for higher-quality facilities.

Example of Type D (Outdoor Sport and Recreation Facilities)

In an effort to meet these growing expectations, City Administration has begun planning for a major premiere quality soccer/football complex. When developed, the West District Park will provide top-quality sporting facilities and will greatly assist the sport community in their service delivery. In order to see the community benefits of high quality sport programming, a concerted effort around sport field development and upkeep is required.

The emergence of newer sports is changing the way recreation spaces are designed. Once thought of as "extreme" sports, skateboarding, in-line skating and BMX are fast becoming mainstream activities in urban centres and in many cases, are overtaking traditional team-based sports. Competition amongst participants is also becoming very popular as is the case with Spruce Grove's skatepark facility located in Central Park. These sports will likely continue to grow and consideration of provision of additional facilities should be included in park planning.

Standards for Provision

- These types of open spaces are generally population-based, and should be provided according to the accepted norms and standards.

Table 13. Type D Standards for Provision

Sub Type	Area per 1000 Population Catchment Radius	Service Catchment Area (miles)	Desirable Size
Tot Lot	0.25 - 0.5 ac 0.1 - 0.2 ha	Radius <1/4 mi.	<1 ac 0.4 ha
Neighbourhood Park / Playground	1 - 2 ac 0.4 - 0.8 ha	Radius 1/2 - 1/2 mi. for a population <5,000	>15 ac 10 ha
Athletic Complex	5 - 8 ac 2 - 3.2 ha	Radius 1 - 2 mi. 1.6 - 3.2 ha	>25 ac 10 ha
Combined complex, tournament level and other facilities,			20 - 80 ac 8.09 - 32.37 ha

The requirement for different types of sports and recreation facilities varies from place to place, and from time to time. Also, the need can be affected by the supply – there is often no demand for a particular facility until one is provided in a place. Some activities are also subject to trends, and may only be in demand for a finite period of time.

Although these standards are a useful tool for determining provision of Type D space, using such standards for major athletic facilities is more difficult. For example, Spruce Grove has a number of tennis facilities that are under-utilized, while a large number of sport fields are used beyond capacity. While population-based standards can be helpful, evaluating community needs and expected levels of service (early in the process) is generally a more accurate method for providing large-scale sport facilities.

Table 14. Type D Standards for Provision

Sports fields/recreation facility	Standard per population
Baseball diamonds	1/6,000
Softball diamonds	1/3,000
Tennis courts	1/2,000
Basketball courts	1/500
Shooting range	1/50,000
Golf course	1/25,000

The following table represents the status-quo standard for sport facilities currently in Spruce Grove. The last two columns include the number of new facilities that would be required if the assumption of maintaining the status-quo remains.

Table 15. Current Type D Facilities in Spruce Grove

Type of Facility	Number of Facilities	2006 (19,601) Status-Quo	2010 (24,742) Projected	2016 (32,220) Projected
Class A Ball Diamonds	6	1/3,267	7.6 (+1.6)	9.9 (+3.9)
Class B Ball Diamonds	8	1/2,450	10.1 (+2.1)	13.2 (+5.2)
Senior Soccer	13	1/1,507	16.4 (+3.4)	21.4 (+8.4)
Junior Soccer	17	1/1,153	21.5 (+4.5)	28 (+11)
Football Practice Field	1	1/19,601	1.3 (+0.3)	1.6 (+0.6)
Football Game Field	3	1/6,533	3.8 (+0.8)	4.9 (+1.9)
Basketball Courts	10 sites	1/1,960	12.6 (+2.6)	16.4 (+6.4)
Outdoor Ice Surface - Hockey	3	1/6,533	3.8 (+0.8)	4.9 (+1.9)
Outdoor Ice Surface - Leisure	3	1/6,533	3.8 (+0.8)	4.9 (+1.9)
Tennis Courts	3 sites	1/6,533	3.8 (+0.8)	4.9 (+1.9)
Skateboard Park	1	1/19,601	1.3 (+0.3)	1.6 (+0.6)
BMX areas	1	1/19,601	1.3 (+0.3)	1.6 (+0.6)

Objectives

- All citizens should have easy access to outdoor facilities for sports and recreation.
- A range of sports should be provided for, and Spruce Grove should assess the demand, and emerging demand, for various sports and recreation activities, and endeavour to address them.
- Spruce grove should provide a variety of sport fields ranging from community / drop-in use to premiere quality and tournament facilities, based on user demand and financial restraints.

Policy

1. Type D open spaces for entry-level sports and recreation should be provided within easy access of every citizen.

2. City-wide fields, including major athletic parks shall be built to accommodate advanced levels of play and may be acquired through a partnership arrangement or be joint-use facilities.

3. The Community Services Department shall examine all opportunities for retrofitting and intensifying existing sports fields prior to building new sites.

4. Any retrofitted or new sports fields shall accommodate multiple uses, in order to make the most efficient use of space, and to avoid specialized parks and open spaces sitting idle during periods of non use.

5. All new sports fields shall be designed and constructed in accordance with the current edition of The City of Spruce Grove Engineering Standards or equivalent.

6. Commercial or industrial developments should be considered for sports field development, dependant on adjacent land use and connection to the site by regional pathway.

7. Municipal owned public golf course design shall include consideration of year-round use, such as cross-country skiing.

Priority Actions

1. The City should endeavor to create or have created, a Sports Fields Management Plan to address at a minimum: user issues, cost recovery strategies, utilization / under-utilization, seasonality of use and ways to improve booking and programming.

2. Emerging, non-traditional sports groups (e.g., skateboarding, BMX, in-line skating) should be encouraged by the City to assist in reviewing under-utilized sports fields for opportunities to retrofit and adapt those sites for their use and/or investigating industrial lands for such uses.

3. The Conceptual Spruce Grove Parks and Open Space System is illustrated in Figure 12. The map includes those park sites already owned and managed by the City along with suggested locations for future incorporation (e.g., those lands as shown in approved ASPs, and Outline Plans and within unplanned privately held lands).

4. The City should determine a suitable location for a tournament facility for organized sport, that is large enough to provide a large number of facilities and located in close proximity to overnight camping.
5. Spruce Grove should complete a "Regional Recreation Plan" to identify all needs and opportunities in the Spruce Grove, Stony Plain and Parkland County area, as well as possible partnership arrangements.

E Linear systems, Green Corridors, Paths, and Streets

Examples of Type 'E' Open Spaces:

- Paths
- Bikeways
- Trails
- Streets
- Rights-of-way

Green corridors are important as recreation pathways and access points to ecological areas and recreation fields, and many are related to existing green spaces. Other linkages between open spaces often already exist, and this plan attempts to identify where potential connections between individual open spaces, open space clusters, or population concentrations may be strengthened. This will help to allow the evolution of an infrastructure of open spaces, with the various types of open space connected by a system of paths and trails. Many of the existing streets and linear parks provide opportunities for development of this system.

Ordinary streets are also part of the open space system, but often vary in their degree of pedestrian-friendliness.

Spruce Grove Context

Spruce Grove has a network of trails and paths, most extensively developed in Heritage Grove Park and Fairway Park.

Streets are considered in this plan as an important element of the pedestrian path system. Much of the established city is permeable and walkable, with good linkages between neighbourhoods. Many newer neighbourhoods do not provide good linkages, and are less walkable. This encourages automobile dependency and reduces the ability of the city form to support the activity of walking, one of the easiest ways of obtaining exercise.

Example of Type E (Linear systems, Green corridors, Paths, and Streets)

Pedestrian connections across Highway 16A are poor, with few opportunities to cross. This is particularly problematic for access to Henry Singer Ball Park.

Standards for Provision

This type of open space connects other types, and is a system in itself. It should be based on the environmental framework, and should link major nodes. All residents should have easy access to the system.

Objectives

- Open space nodes and all major parks and open spaces should be linked by a multi-modal path system.
- New development should link to the existing open space system.

Policy

1. The City of Spruce Grove shall support, enhance and expand both the community level and regional pathway system to promote healthy living, and sustainable recreation and transportation. Optimally, the regional pathway should be designed for walkers, runners, cyclists, inline skaters, skateboarders and persons with reduced mobility. Designs should also consider access, safety and adequate signage.

2. Community level pathways should connect with Spruce Grove's regional pathway, and/or other key destinations within the community, such as neighborhood scale parks, schools, recreational facilities, and commercial areas.

3. The regional pathway connections should be routed along the edges of ESAs or into locations with less sensitivity to the natural ecology to minimize the impact on the natural space and to minimize desire lines.

4. The City should consider increasing the width of pathways from 2.5 m to a 3.0 m wide asphalt top.

5. All new paths (regional and community) should be designed to provide off-street connections. Where it is necessary to follow the road, the street design should accommodate regional pathway users.

6. The City should collaborate with the Town of Stony Plain and Parkland County to seek opportunities to connect Spruce Grove's regional pathway with the Town and County (if applicable) to pursue development and implementation.

Priority Actions

1. Figure 9 illustrates Spruce Grove's existing regional trails and paths. New alignments for trails and paths are identified. Additions to the path system should be reviewed annually by a multi-departmental committee to ensure it is in keeping with the City's policy and infrastructure direction.

2. Gaps in the existing pathway system in the downtown and established neighborhoods should be addressed as soon as possible.

F Campgrounds & Day Use / Picnic Areas

Examples of Type 'F' Open Spaces:

- Recreational vehicle areas
- Camping areas
- Picnic and day-use areas

Places for camping and day use are often associated with natural areas, and are usually close to road access. They can also take advantage of views or existing places of interest.

Campgrounds and day use areas should be located within access of all of the population, but are best located in association with either an ecological feature or a cultural landscape. Road access is a requirement.

Spruce Grove Context

There are currently no campgrounds or day use areas in Spruce Grove, other than the Chamber of Commerce site, reserved for the purposes of the traveling public, and few picnic areas.

Standards for Provision

- 5 - 10 acres (2 - 4 ha)/1000 population.
- Service catchment area one hr driving time, for several neighbourhoods.
- Desirable size > 200 acres (80 ha).

Objectives

- Find an adequate site for camping (tent and tent-trailer) within Spruce Grove's city limits
- Provide day use facilities (washrooms, showers, kitchen facility) for the traveling public.

Policy

1. Siting a campground should consider:
a) proximity to major transportation route;
b) access to regional pathway system;
c) inclusion of washroom / shower facilities;
d) proximity to land uses sensitive to noise and traffic; and
e proximity to basic commercial goods.

Priority Actions

1. The City should conduct a Best Practices Review of urban campgrounds in North America as a starting point for considering this use in Spruce Grove.

G Non-Contributing Green Space

Examples of Type 'G' Open Spaces:

- Utility strips and transformer pads
- Grassed intersections
- Left-over green space/open space
- Awkward locations/sizes/shapes
- Rights of Way (ROW)

All parks, trails and open spaces should contribute to a comprehensive plan and be developed as one of the Types A – F. Through development and construction processes, there can often be "leftover" parcels of land which are provided to a municipality as Municipal Reserve and called "Park." These often isolated spaces have no real connection to the community nor do they connect with another type of open space.

Right-of-Ways (ROW) provide area for infrastructure improvements and also act as utility easements. These spaces are often highly maintained turfgrass, and occasionally include trees and other plantings.

While there are many ROW open spaces that are considered unusable as open space, others may be incorporated into the open space system. A ROW considered unusable as an open space may still offer visual relief or provide a buffer along roads or rail lines, therefore each open space should be evaluated separately.

Spruce Grove Context

Non-contributing open spaces are often caused by conditions that tend to be out of the control of the municipality. For example, Highway 16A is a provincial road and the right-of-way generated along each side and within interchanges is considered non-contributing open space.

Example of Type G (Non-Contributing Green Space)

Standards for Provision

- This type of open space should be minimized. Some of these spaces are necessary, but should not be included in the calculation of park and open space. This type of open space should be described accurately, so that its maintenance can be appropriate.

Objectives

- Reduce or eliminate all existing and avoid the creation of new non-contributing open space in Spruce Grove.

Policy

1. All new proposed open space must contribute to the overall system of public space, and shall be Type A - F open space.

2. Development plans shall indicate all proposed open space, and

no non-contributing open space shall be permitted, except where essential in the provision of utilities.

3. All existing non-contributing open space should be evaluated for its use and potential reuse. Spaces identified as non-contributing shall be removed from the City's open space inventory, and mapping corrected.

4. Planning shall be consulted on all new ROW construction to provide comments on integration with the open space system, landscaping and maintenance requirements.

Priority Actions

1. The City should conduct a Non-contributing Open Space Review to determine how best to deal with existing spaces that do not contribute to the system and how to avoid this type of space in the future.

Parking lots should incorporate tree planting and landscaping.

5.6 The Urban Forest

The Urban Forest is composed of all the trees and shrubs within city limits. It includes natural vegetated areas as well as parks and street boulevards. While the trees on private property also contribute to the urban forest, only the trees on public property are considered as the responsibility of the City in this plan.

Parking lots provide opportunities for multiple tree planting and should contribute to the urban forest

The City of Spruce Grove adopted an Urban Forest Management Plan in December 2004. This two volume document provides a general biophysical survey of the forest conditions in Spruce Grove followed by a detailed forest inventory of each of the major forest stands in the city: Heritage Grove, Atim Creek, Jubilee Park and Cooke Lands Forest Reserve. The study was completed with long term directions on funding, partnerships and other urban forestry possibilities. This Open Space & Park Master Plan enforces the importance of urban forest management as a critical element of the city's open space plan. Street trees are an important structural, biological, and aesthetic component of the city, and greatly improve the quality of life as well as the economic value of neighbourhoods. Street trees provide numerous benefits including:

- provision of shade in the summer and shelter in the winter;
- improvement of the walkability of streets, thereby contributing to higher standards of public health;
- contribution to the overall attractiveness of the streets and the city as a whole; and
- provision of many ecological functions, and serving as habitat for many species of birds and other wildlife.

Street narrowings provide space for trees

The presence of street trees, and the design of residential streets, has varied over time in Spruce Grove. The inclusion of public street trees in neighbourhood planning has generally declined, to the detriment of the city form, image and quality.

Streets should always have trees on both sides

The City of Spruce Grove currently has a policy that deals with tree removals and plantings on city titled boulevards and road right of ways, and it also has a list of appropriate tree species. This should be supplemented by an urban forest management plan, based on objectives that support this Plan.

A strong vision of the public open space system should include streets with street trees as one of the most important public open space elements. This needs to be combined with a good planting, management and replacement program. This plan proposes that all streets include street tree planting.

5.7 Industrial Land

Planning for open space and trails within the context of a business park (e.g., "big box" retail) or an industrial park (e.g., Madison or Yellowhead Industrial Area) presents different challenges than for a residential area. However, the same high standards are expected in these areas, and there are some unique opportunities to incorporate open spaces, street trees and environmental management practices to make business and industrial parks human-scaled, walkable, and of a high aesthetic quality. Cash-in-lieu may be taken where development of open spaces or streetscape improvements are not possible. The City is interested in engaging developers and industrial land owners to move towards implementing eco-industrial standards and, therefore, acquiring lands for eco-infrastructure solutions is also encouraged.

Recommended Policy

1. Open Space dedication in business and industrial areas should reflect the concepts and principles of the Parks and Open Space Plan. The City shall enforce the open space policies for commercial and industrial land use, within the Spruce Grove City Plan.

2. All developments in these areas are expected to contribute to the system of open spaces through dedication of land and/or through streetscape improvements. The City is to determine the appropriateness of the open space approach for each development on a case by case basis.

3. The City should seek agreements and/or partnerships with developer/landowners to integrate open space and park into industrial or commercial land use areas.

4. The City should create policy for comprehensive commercial business parks (e.g., big box retail) in Spruce Grove, as it pertains to open space for industrial areas.

5. All commercial business parks and industrial parks shall be connected by the regional as well as the local level pathway system.

6. The use of green infrastructure practices for big box retail centres and/or lifestyle centres should be practiced as discussed in this POSMP.

Recommended Priority Actions

1. The City should create an Eco-Industrial / Business Park Strategy to guide future big box and light industrial development in a manner that is more responsive to the environment and is more inviting to users. Construction using green infrastructure is highly encouraged.